ABSTRACT
        One college language teacher developed
computer-interactive audiotape exercises for an intermediate-level
class in business French. The project was undertaken because of a
need for appropriate materials at that level. The use of authoring
software permitted development of a variety of activity types,
including multiple-choice, fill-in-the-blank, and read-along
exercises. The activities developed were on aspects of the French
banking system. The steps taken in planning, creating, and evaluating
the materials included definition and sequencing of lesson
objectives, determination of appropriate exercise types, creation of
a preliminary tape and diskette, pilot testing, lesson revision based
on feedback, testing of the revised lesson on the entire class, and
evaluation and further modification of the unit. The exercises were
developed with consideration for the texts to be used and the
students' anticipated response to the activity type. Pilot testing
revealed flaws both inherent in the software design and created by
the lesson's design. The significant amount of time and effort
invested in creating the materials was rewarded by the students'
enthusiastic reception of them. (MSE)

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DEVELOPING COMPUTER-INTERACTIVE TAPE EXERCISES

FOR INTERMEDIATE-LEVEL BUSINESS FRENCH

by

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In the spring of 1986, I received a faculty development grant
from the Bush Foundation to create computer-interactive tape
exercises for an intermediate-level class in business French at
the University of South Dakota. It is my hope that the following
description of my project may be of use and encouragement to
foreign language teachers, like myself, who are interested in
integrating computers into their classes, but whose experience in
using microcomputers has been limited. Although this paper deals
with a specific language (French) on a specific level
(intermediate), most of my observations are applicable to other
languages and levels of instruction. My perspective is not that
of an expert in computer-aided instruction, but that of an
educator who, with some trepidation, has entered a new field of
endeavor.

My interest in developing computer-interactive tape exercises
was the result of both necessity and opportunity. For several
years I had been confronted with the difficulty of finding an
adequate textbook for teaching an intermediate-level (second
year) course in business French. Most textbooks are designed for
students in third-year French or above; there are few second-year
textbooks currently on the market which integrate a review of
basic grammar structures, desperately needed at the intermediate

level, into a business context.[1] Second-year students also need
extensive practice in developing listening comprehension, yet
tape programs are lacking in most intermediate-level texts. The
development of computer-interactive tape units which present
grammar review and listening comprehension exercises in a
business context was a logical solution.

The opportunity to realize this project depended on some
fortunate circumstances. Our department had recently purchased
some Tandberg TCCR 530 computer-interactive cassette recorders
for our language laboratory; we had also acquired our first
microcomputer, an Apple IIe. Several instructors, including
myself, had been able to gain some experience creating computer
exercises on the Apple IIe, using DASHER.[2] This first experience
with an authoring program taught me two valuable lessons: (1)
developing computer exercises takes much more time than you think
it will at the outset, and (2) having an experienced colleague or
resource person to consult is a necessity for a novice, despite
assurances by software advertisers of the "user friendliness" of
their product.

For the foreign language educator without programming skills
who wishes to create computer-interactive exercises with an audio
component, the immediate problem is finding suitable software.
For my project, I was able to use IDI AUTHOR: A Multi-Lingual
Authoring System then under development by Instructional Design

International.[3] This software does not require knowledge of a
programming language, but it does take time to master and has
special hardware requirements. To author a disk with IDI AUTHOR,
you need an Apple IIe with Super Serial card or an Apple IIc with
a special cable, 128K, and two disk drives. The student disks
that you create can be run on the Apple IIe or IIc (with special
cable) and require 128K and one disk drive.

The lesson you design is composed of frames or pages, each the
equivalent of what can be displayed on the computer monitor at
one time. For each frame, you may choose from a menu of five
activities: presentation, multiple choice, read-along,
fill-in-the-blank, and compare/contrast. Stimulus and feedback
may be aural, visual, or both. You may also incorporate
prerecorded tapes and other text and graphic files into the
lesson. It is my experience, however, that the various activity
formats in this program vary in smoothne s of operation and
potential for pedagogical application.

The presentation activity, as its name suggests, can be used
for introductions to the lesson, directions to the student, and
general prose. Each frame is 39 characters long and 18 lines
deep, and, if you wish, there is an option for automatic frame
advance. Unfortunately, the text editing mode in this, as in all
other activities, is not sophisticated. Text does not wrap
around from line to line; to make deletions or additions it is

necessary to retype entire lines, sometimes even the entire
screen.

The multiple choice activity most successfully realizes the
potential of the system to be truly interactive. When a student
selects an answer, the recorder automatically advances to the
recorded feedback for that option. If the first choice is
incorrect, the student chooses another response, and the recorder
again advances or rewinds to the respective feedback passage. A
drawback to this activity, however, is the limitation of space
for the written text. There are only nine lines available for
both the question and as many as four answer options. For each
possible response, two lines of written feedback may be
included. These constraints can, at times, be frustrating.

The fill-in-the blank activity accomodates both single blank
questions and multiple blank cloze passages. You may provide
ordered feedback in which you give the student the correct answer
after the third try for single blank exercises. A pedagogical
flaw in this activity is that the size of the blank on the screen
indicates the number of letters in the response, thus providing
an unwarranted clue to the correct answer.

The read-along activity is extremely useful for sound/symbol
practice. You synchronize a recorded passage with the screen
display by inserting read-along stops into the text to mark
counter values on the recorder. You may display the entire text

or simply key words or phrases as cues for listening
comprehension. Learning to set and co-ordinate the counter
values is difficult at first, but the system works well once you
have mastered it.

In the compare/contrast activity, students can be asked to type
in the text of a recorded passage or translate it. They are then
shown the correct answer with which to compare their response.
The screen provides five lines for directions or other text; the
student has five lines to type in the response, and at the bottom
there are five lines for the model or other feedback.
Personally, I feel the educational value of this type of exercise
is questionable. Much depends on the motivation and ability of
the student. Students can easily avoid serious response because
the correct answer is provided no matter what is typed in.
Students who do take the exercise seriously need a certain degree
of sophistication in order to compare their answer to the model
and profit from the feedback.

The first set of exercises I developed with this software was a
unit on the French banking system. In selecting this content
area, I was motivated by several factors. Since I anticipated
that it would take 3-4 weeks to develop, test, and revise a unit,
it seemed important to create lessons that were not tied to any
specific textbook but whose content area was included in most
major ones. I did not wish to exert time and effort to create

lessons which might be obsolete if the next year I decided to change textbooks. The French banking system is a primary topic in both intermediate and advanced texts; moreover, its complexity makes it a likely candidate for the reinforcement which computer exercises can provide.

The development of this lesson included the following steps:

1. The definition of lesson objectives and their sequence.

2. The determination of types of exercises best suited to achieving these objectives within the constraints of the software program.

3. The creation of a preliminary tape and diskette.

4. The testing of this preliminary tape and diskette on a small number of students.

5. A revision of the lesson based on feedback from the students.

6. The testing of the revised lesson on the entire class.

7. The evaluation and further modification of the unit based upon feedback from the entire group.

My objectives in designing a unit on French banking were limited. The lesson was intended to familiarize the students with the various types of French banks and incorporate the

vocabulary of banking activities into grammar exercises that would give intermediate students practice in areas that pose some difficulties for them. Taking into consideration the types of exercises possible with the software, I designed a lesson containing three activities: (1) a read-along section on the French banking system which the student hears on tape and follows on screen, (2) a multiple-choice exercise to test comprehension of the read-along section, and (3) a fill-in-the -blank section requiring students to type in the correct preposition (à, de, or none) after a verb.

For the read-along section, I modified a short passage from Mustapha K. Bénouis' excellent Le français économique et commercial describing the various kinds of banks in France and their activities.[4] Sentences were simplified for second year students and the material was condensed for readability on the computer screen. The complete read-along section was composed of ten frames, each containing approximately 30-50 words.

The read-along section was followed by four multiple choice questions testing comprehension. The following is an example of a multiple choice question (with feedback shown here below each reponse):

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Quelle banque contrôle le volume et le coût du crédit en France?

A. la Banque de France
                    Oui, très bien.

B. le Crédit National
                    Non, il finance les entreprises.

C. le Crédit Industriel et Commercial
                    Non, le CIC est une banque de dépôts.

D. le Crédit Commercial de France
                    Non, c'est une banque privée.

A fill-in -the-blank section of ten sentences using banking vocabulary and incorporating content from the reading passage completed the lesson. The student was to provide the appropriate preposition needed after the verb, as in the following example, which includes feedback options that I provided:

Le Banque de France a décidé __ baisser le taux d'escompte.
Bonne réponse! -- Désolé. -- Essayez encore. -- Mais non!

The first version of this lesson was then tested by having a student run through the exercises under my observation. A number of problems were identified. Some were inherent in the software design: for example, the size of the blank gave a clue to the correct answer. Others were flaws in the lesson itself, such as unclear feedback. On the whole, the student, although in the top quarter of the class, had difficulty with the exercises. The correct answer was chosen on the first try in the multiple choice section only 25 per cent of the time; the correct preposition was chosen only 46 per cent of the time in the fill-in-the-blank

activity. The student, however, was positive in regard to the usefulness of the activity, particularly the preposition exercise, and recommended expanding the number of items in both sections.

In my revision of the unit, I expanded the number of multiple choice questions to six and fill-in-the-blank items to fifteen. Other changes were made to clarify items in both sections. This revised united was then given to the entire class of sixteen students to evaluate in pairs using written evaluation forms. In addition, I tested the unit once again by observing an individual student run through the exercises.

The results of these evaluations held some surprises and convinced me of the wisdom of involving students in the development of lessons, perhaps at an even earlier stage than the testing. In general, students felt that the length and difficulty of the exercises in the revised lesson were about . right. Their opinion of the relative usefulness of the various sections was, however, unexpected. They did not perceive the read-along exercise, a unique feature of the computer-interactive program, as particularly useful. In fact, two of the eight groups did not see it as useful at all and the other groups felt it was only moderately useful. On the other hand, the students were quite unexpectedly enthusiastic about the usefulness and, indeed, fun of the fill-in-the-blank activity. I suspect that

this is partly because fill-in-the-blank exercises are more
traditionally found in workbooks and on tests, so that the
students are perhaps more apt to perceive the "usefulness" of
this activity in light of what they are generally asked to do.
It is important therefore in the development of lessons to
clarify for the students the reasons and objectives of the
various sorts of exercises. This is perhaps most easily achieved
by involving students in the planning and design of the lesson
itself, thus fostering mutual awareness of expectations on the
part of both teacher and students.

The most rewarding aspect of the development of this program
was the positive, enthusiastic reaction of the students. In
their written comments as part of the general evaluation, many
indicated that working with the computer was fun. One group
commented that the exercise on prepositions was "more fun because
it seemed as we worked on it we were learning." Several groups,
in fact, expressed a desire for more and longer exercises. One
group made the following comment on the feedback responses that I
was able to customize for the excercises: "Love the expletives!"
The expletives, I hasten to add, were simply expressions like
"Super!" "Désolé" and "Réfléchissez!"

Based on responses such as these, I would encourage you to
consider integrating computer-interactive exercises into your
classes, and, if you are creating your own exercises, to actively

involve your students in developing and evaluating them. To do so involves a real commitment of time and effort, and there are many moments of frustration. I think, however, that you will find the results well worth it.

NOTES

1. A recent exception is Georges Perla's workbook French for Business and Finance which accompanies his and Gloria Russo's text, Basic French Grammar (D.C. Heath, 1985).

2. An authoring program developed by James Pusack, Conduit, University of Iowa.

3. Now available from Tandberg Educational, 1 Labriola Court, Armonk, NY 10504. IDI AUTHOR includes modifiable character sets for all Roman-alphabet languages plus Greek, Russian, and Japanese, as well as a SONY videodisc interface.

4. Published by Harcourt Brace Jovanovich, 1982. The Bénouis text is designed for third-year students.